

**VOLVO WHEEL LOADERS**  
**L45F, L50F**



**MORE CARE. BUILT IN.**



# VERSATILE HIGH PERFORMANCE AND EFFICIENCY

## Dedicated pumps optimize output

A load-sensing hydraulic pump lies at the heart of the L45F and L50F. Unlike a fixed gear pump, which delivers the same volume of oil regardless of load, the load-sensing pump only delivers the volume of oil to do the job. This helps conserve fuel, saves unnecessary pump wear and reduces hydraulic oil temperatures.

A separate, independent pump takes care of the power steering. This ensures full steering power is retained when working at full capacity.

## Hydrostatic efficiency

Volvo has invested a great deal of design effort in the hydrostatic transmission of the L45F and L50F. Priorities include smooth speed progression for delicate work such as pallet stacking to high power transfer in demanding conditions.

Fitted with a mechanical two-speed selector to allow a high transport speed to be achieved, the transmission has overload protection to prevent overheating and overloading the engine.

The combined brake and inching pedal adds a further level of control. Light pressure on the brake pedal slows the loader using the transmission.

Additional pedal pressure applies the rear axle brakes. This can be used to hold the loader when operating the loader arms on an incline.

A separate inching control is fitted to the joystick.

## Multi-function joystick

Light and easy to operate, the multi-function joystick offers straightforward control of the loader. Separate control buttons are fitted to operate hydraulic functions. A lock position allows continuous hydraulic flow for attachments such as a sweeper.

The joystick also has buttons to select various transmission functions and also allow a fast shuttle between forward and reverse. Differential locks and gear speed are also selected from this single control.

## Long service intervals

Service intervals are established following extensive field testing. In normal operating conditions, key engine service intervals are 500 hours, axles 1000 hours and hydraulic oil and filters 1500 hours.

All grease points are clearly marked and easy to access. Within a few minutes, the loader can be checked and ready for a hard day's work.

## Versatile TP Linkage

The Volvo patented TP (torque parallel) Linkage system matches high tip angles with parallel lift throughout the lifting range. Offering high visibility over pallet loads matched to fast bucket tip and crowd, the TP Linkage helps to ensure the L45F and L50F two of the most versatile loaders in its class.

Added benefits include a wide roll back angle for bucket attachments and load retention.

## Comfort and productivity

Settle into the cab of the Volvo L45F and L50F, it is clear that a great deal of effort has gone into its design. From the range of seating and steering adjustments through to the ergonomic layout of the controls, it shows that the operator has been put highest on the priority list.

All-round visibility is excellent, the fully glazed doors and slim cab pillars making it easy to see to the sides. The view over the loader is excellent, too, with a really good view of pallet loads.

Mounted on damped viscous mounts, the cab offers low noise and vibration levels. This helps ensure comfort on the longest of working days.

The heating and ventilation system is designed to provide rapid de-frosting, with vents for directing filtered heating or cooled air exactly where it is needed.

A fully automatic air-conditioning system can be specified.

## Genuine four-wheel drive

In extreme conditions, optimum performance can only be guaranteed when full power is available to all four wheels. To achieve this, positive locking differentials are fitted to both the front and rear axles. When the operator selects differential lock, all four wheels get equal power and can generate equal traction.

## Reversible cooling fan

A fully automatic reversible cooling fan can be specified for the L45F and comes standard on the L50F. This is beneficial in applications where cooling air drawn into the radiator is subject to debris contamination. In action, the reversible fan will slow to a stop and then reverse. This will cause debris caught on the main engine hood screen to be blown clear, and clear debris drawn into the cooling pack.

## Increased productivity through higher speed and faster transport

The optional equipment "High travel speed" allows vehicle speeds up to 40 km/h. This is a distinct advantage when the machine is constantly driven between work sites, used for delivery of materials on the site and when operated in relatively long load-and-carry applications.

## Key Features

- All the advantages of traditional Z-bar and parallel linkage in one design.
- Parallel lift through full lift range.
- TP Linkage optimizes breakout force.
- Wide attachment choice to suit specific needs.
- High bucket tip angles.
- Full steering power, regardless of load.
- Dash shows all the information you need.
- Ergonomic control layout.
- Spacious cab offers comfort and visibility.
- Filtered ventilation system.
- Easy service access.





# VOLVO FEATURES THAT PUT YOU AHEAD

## **Volvo Engine & Serviceability**

- Fuel efficient
- Transverse fitted
- Optimized balance
- One piece lockable hood
- Full service access



## **100% Locking Differentials**

- Fitted on both front & rear axles
- All wheel drive always available
- Oscillating rear axle for better stability
- Heavy duty center pivot



#### **Cab & Operator Comfort**

- Excellent all round visibility
- Full cab filtration
- Safe, quiet and comfortable
- Extra bright working lights

#### **Hydraulics**

- Separate working and steering pumps
- Load sensing system
- Volvo style hyd quick attach

#### **Torque Parallel Linkage**

- Parallel lift from top to bottom
- Maximum dump reach
- High tip angle
- Reduced cycle times





# L45F & L50F SPECIFICATIONS

## Engine

Volvo in-line 4-cylinder, 4 stroke, direct injection water cooled, turbocharged diesel engine. EPA Tier 3 / EU Stage IIIA compliant. Air cleaning: 1. Pre cleaner with ejector / 2. Primary filter with indicator in cab / 3. Safety filter.

<b>Engine</b>		
<b>L45F</b>	D5DCAE3	
<b>L50F</b>	D5DCBE3	
<b>Gross power @</b>	<b>36.6 r/s</b>	(2200 r/min)
<b>SAE1995</b>		
<b>L45F</b>	<b>100 hp</b>	(74.9 kW)
<b>L50F</b>	<b>117 hp</b>	(87 kW)
<b>Net power @</b>	<b>36.6 r/s</b>	(2200 r/min)
<b>SAE1349 - DIN ISO 1585</b>		
<b>L45F</b>	<b>98 hp</b>	(73 kW)
<b>L50F</b>	<b>115 hp</b>	(85 kW)
<b>Max. torque @</b>	<b>26.6 r/s</b>	(1600 r/min)
<b>SAE1349 net - DIN ISO 1585</b>		
<b>L45F</b>	<b>301 lbf-ft</b>	(409 Nm)
<b>L50F</b>	<b>352 lbf-ft</b>	(478 Nm)
<b>Cubic capacity</b>	<b>290 cu in</b>	(4.76 l)
<b>Bore</b>	<b>4.25 in</b>	(108 mm)
<b>Stroke</b>	<b>5.1 in</b>	(130 mm)

## Electrical system

<b>Rated voltage</b>	24 V
<b>Battery voltage</b>	2 x 12 V
<b>Battery capacity</b>	2 x 90 Ah
<b>Alternator rating</b>	1540/55 W/A
<b>Starter motor output</b>	4.0 kW

## Drivetrain

Transmission: hydrostatic transmission, full power shift under load, both when changing direction (forward and reverse) and between ranges. Maximum drawbar force can be achieved in all ranges. Inch/brake pedal for variable machine speed control and power transfer to bucket hydraulics at constant engine rpm. Multi-function joystick for change of direction (FWD-REV.), differential lock and use of the servo-control.

<b>Oscillation at wheel, max.</b>	<b>14.2 in</b>	(360 mm)
<b>Track</b>		
<b>L45F</b>	<b>68.9 in</b>	(1750 mm)
<b>L50F</b>	<b>68.1 in</b>	(1730 mm)
<b>Angle of oscillation</b>	<b>±12°</b>	

## Tires

<b>Size</b>	
<b>L45F</b>	15.5-25
<b>L50F</b>	17.5-25
<b>Rim</b>	
<b>L45F</b>	12 x 25 ET15
<b>L50F</b>	14 x 25 ET25

Differential locks: hydraulically actuated 100% differential locks in both axles.

Frame: solid front and rear frame, robot-welded. Articulating-oscillating joint for optimum maneuverability and traction.

## Standard Speed, max.:

<b>1st range forward/reverse</b>	<b>0-3.1 mph</b>	(0-5 km/h)
<b>2nd range forward/reverse</b>	<b>0-12.4 mph</b>	(0-20 km/h)

## Optional High Travel Speed, max.:

<b>1st range forward/reverse</b>	<b>0-3.1 mph</b>	(0-5 km/h)
<b>2nd range forward/reverse</b>	<b>0-10.5 mph</b>	(0-16.9 km/h)
<b>3rd range forward/reverse</b>	<b>0-25 mph</b>	(0-40.2 km/h)

## Service fill capacities

<b>Engine</b>	<b>3.7 US gal</b>	(14 l)
<b>Fuel tank</b>	<b>42.2 US gal</b>	(160 l)
<b>Front axle, total</b>	<b>4.7 US gal</b>	(18 l)
<b>Rear axle, incl. drop-box</b>	<b>4.9 US gal</b>	(18.7 l)
<b>Hydraulic tank, incl.</b>	<b>23.7 US gal</b>	(90 l)

## Braking system

Service brake: reliable, dual braking system, disc brake hydraulically actuated via pump accumulator, acting upon all four wheels.

1. Wear-free, hydrostatic inching brake / 2. Central disc brake, actuated via "inch/brake pedal." First stage of pedal application actuates the inching facility, the last third of pedal application applies the central disc brake / 3. High speed version inch/brake pedal and additional pedal both acting on the oil immersed multi-disk brake.

Parking brake: central disc brake, acting upon all four wheels.

## Hydraulic system

Load-sensing hydraulic system with self-controlling power distribution. Thermostatically-controlled oil circuit with integrated cooling system. Hydraulic control valve: Servo-controlled, double acting control valve three spool system, with primary and secondary pressure valves.

1. Lifting function / 2. Tilting function / 3. Additional function for hydraulic QC, unlock, neutral, lock. Preparation for operating hydraulic attachments with this function is available as an option. Hydraulic oil filter: Combined suction and return-filtration cartridge with a 10 micron filter. The filter can be replaced without emptying the hydraulic oil tank.

Axial piston pump

<b>Flow</b>	<b>34.9 US gal</b>	(132 l/min)
<b>@ engine rpm</b>	<b>36.6 r/s</b>	(2200 r/min)
<b>Relief valve pressure</b>	<b>260 bar</b>	(26 MPa)

## Steering

Load-sensing hydrostatic steering. Central articulating-oscillating joint with damping effect. Steering pump: gear-type pump controlled by priority valve. Steering cylinder: 2 double-acting steering cylinders.

Steering:

<b>Angle of articulation</b>	<b>±40°</b>
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Steering pump:

<b>Flow</b>	<b>16.9 US gal/min</b>	(64 l/min)
<b>@ engine rpm</b>	<b>36.6 r/s</b>	(2200 r/min)
<b>Relief valve pressure</b>	<b>220 bar</b>	(22 MPa)

## Linkage

<b>Linkage system</b>	TP
<b>Lift cylinders</b>	2
<b>Tilt cylinders</b>	1

## Lift time (loaded)

<b>L45F</b>	5.3 sec.
<b>L50F</b>	6.4 sec.

## Lowering time (empty)

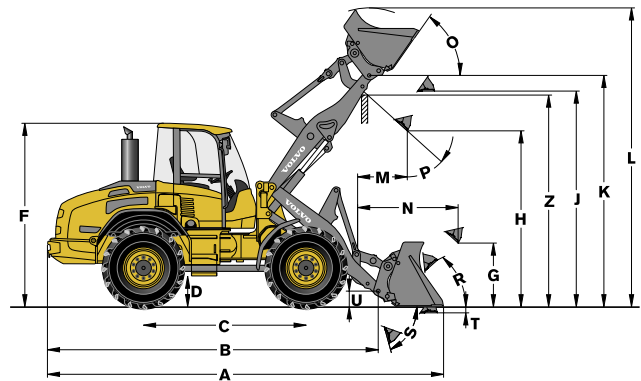
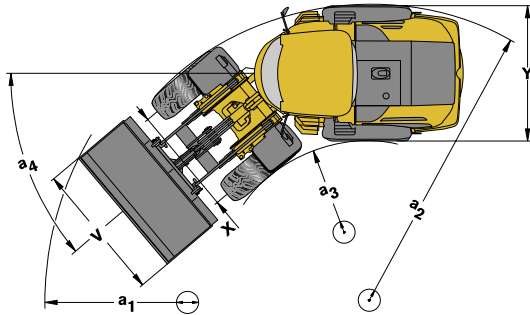
<b>L45F</b>	3.2 sec.
<b>L50F</b>	3.9 sec.

## Dump time

<b>L45F</b>	1.1 sec.
<b>L50F</b>	1.6 sec.



# L45F



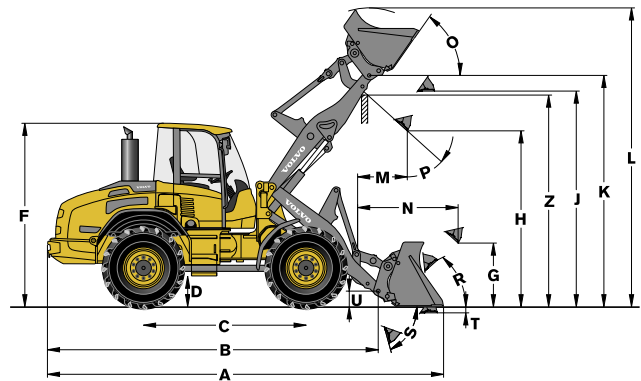
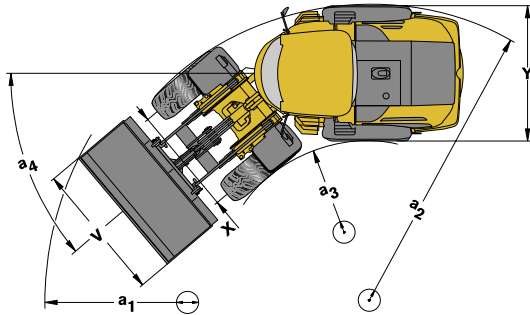
Data according to bucket type		Gen. Purpose		Light material		4-in-1	High-Tip
L45F with TP-Linkage, Volvo style quick attachment (welded version) and 15.5-25 tires							
Capacity heaped	yd <sup>3</sup> (m <sup>3</sup> )	1.8 (1.4)	2.0 (1.5)	2.4 (1.8)	2.6 (2.0)	1.6 (1.2)	2.6 (2)
Material density	lb/yd <sup>3</sup> (kg/m <sup>3</sup> )	3203 (1800)	2697 (1700)	2360 (1400)	2191 (1200)	3203 (1900)	1854 (1000)
Static tipping load, straight (ISO 14397)	lb (kg)	13713 (5970)	13492 (5930)	13272 (5780)	12985 (5670)	13338 (5650)	11596 (4950)
Static tipping load, full turn 40° (ISO14397)	lb (kg)	12125 (5290)	11949 (5250)	11751 (5120)	11486 (5020)	11795 (5000)	10251 (4370)
Hydraulic lifting capacity, max.	lbf (kN)	16636 (70)	16299 (69.4)	16029 (67.5)	15624 (66)	16186 (66.5)	13938 (57.5)
Breakout force	lbf (kN)	14837 (62)	13601 (59.7)	12477 (53)	11240 (48)	14613 (66)	- -
A Total length	ft/ins (mm)	20'10" (6350)	20'11" (6385)	21'4" (6505)	21'8" (6615)	20'8" (6295)	22'10" (6955)
L Lift height, max.	ft/ins (mm)	15'7" (4740)	15'9" (4790)	15'9" (4810)	16'2" (4940)	15'10" (4815)	18'8" (5695)
V Bucket width	ft/ins (mm)	7'5" (2250)	7'5" (2250)	7'5" (2250)	7'5" (2250)	7'5" (2250)	7'5" (2250)
a <sub>1</sub> Clearance circle	ft/ins (mm)	33'10" (10300)	33'10" (10320)	34'1" (10390)	34'4" (10460)	33'10" (10305)	35' (10675)
T Digging depth	ft/ins (mm)	3" (85)	3" (85)	3" (85)	3" (85)	5" (120)	4" (95)
H Dump height, 45°	ft/ins (mm)	9'2" (2800)	9'1" (2780)	8'10" (2690)	8'7" (2610)	9'2" (2790)	13'11" (4230)
M Reach at max. height	ft/ins (mm)	3'1" (930)	3'1" (945)	3'4" (1025)	3'7" (1100)	2'8" (815)	4'11" (1490)
N Reach, max.	ft/ins (mm)	5'9" (1750)	5'10" (1770)	6'1" (1850)	6'4" (1925)	5'5" (1640)	8'9" (2670)
Operating weight	lb (kg)	19026 (8630)	19070 (8650)	19092 (8660)	19158 (8690)	19511 (8850)	20040 (9090)

L45F with TP-linkage, TPV attachment carrier and 15.5-25 tires	
B	17'5" (5320 mm)
C	8'8" (2650 mm)
D	1'4" (395 mm)
F	9'8" (2950 mm)
G	3'3" (1000 mm)
J	11'3" (3430 mm)
K	12'1" (3685 mm)
O	55 °
P	45 °
R	45 °
S	75 °
U	10" (255 mm)
X	5'9" (1750 mm)
Y	7'1" (2150 mm)
Z	11'4" (3445 mm)
a <sub>2</sub>	15'7" (4745 mm)
a <sub>3</sub>	8'5" (2555 mm)
a <sub>4</sub>	40 °

Data with Loading Fork		
TPV attachment carrier Center of gravity 500 mm		
Tipping load, full turn (ISO 14397)	lb (kg)	9744 (4420)
Payload according to EN 474-3, 60/80%	lb (kg)	5842 / 7782 (2650 / 3530)
Payload 80%, transport position, 40° full turn	lb (kg)	8818 (4000)



# L50F



Data according to bucket type		Gen. Purpose		Light material		4-in-1	High-Tip
L50F with TP-linkage, Volvo style quick attachment (cast version) and 17.5-25 tires							
Capacity heaped	yd <sup>3</sup> (m <sup>3</sup> )	2.0 (1.5)	2.1 (1.6)	2.4 (1.8)	2.6 (2.0)	1.8 (1.4)	3.0 (2.3)
Material density	lb/yd <sup>3</sup> (kg/m <sup>3</sup> )	3203 (1900)	2865 (1700)	2528 (1500)	2191 (1300)	3203 (1900)	1686 (1000)
Static tipping load, straight (ISO 14397)	lb (kg)	14462 (6560)	14352 (6510)	14110 (6400)	13867 (6290)	13404 (6080)	12236 (5550)
Static tipping load, full turn 40° (ISO14397)	lb (kg)	12809 (5810)	12677 (5750)	12500 (5670)	12280 (5570)	11883 (5390)	10825 (4910)
Hydraulic lifting capacity, max.	lbf (kN)	19446 (86.5)	19334 (86)	18996 (84.5)	18659 (83)	18322 (81.5)	16411 (73)
Breakout force	lbf (kN)	16186 (72)	15512 (69)	14388 (64)	13039 (58)	14613 (65)	-
A Total length	ft/ins (mm)	21'2" (6460)	21'4" (6495)	21'7" (6580)	21'11" (6690)	21'6" (6560)	23'1" (7030)
L Lift height, max.	ft/ins (mm)	16'0" (4880)	16'1" (4900)	16'4" (4980)	17'2" (5235)	16'1" (4905)	19'5" (5915)
V Bucket width	ft/ins (mm)	7'5" (2250)	7'5" (2250)	7'5" (2250)	7'5" (2250)	7'5" (2250)	7'5" (2250)
a <sub>1</sub> Clearance circle	ft/ins (mm)	34' (10360)	34'1" (10385)	34'3" (10435)	34'6" (10505)	34'4" (10475)	35'3" (10740)
T Digging depth	ft/ins (mm)	4" (95)	4" (95)	4" (95)	4" (95)	5" (130)	4" (105)
H Dump height, 45°	ft/ins (mm)	9'5" (2865)	9'4" (2845)	9'1" (2775)	8'10" (2695)	9' (2745)	14'2" (4330)
M Reach at max. height	ft/ins (mm)	3'2" (965)	3'3" (1000)	3'5" (1040)	3'8" (1115)	3'2" (965)	4'11" (1505)
N Reach, max.	ft/ins (mm)	5'11" (1810)	6' (1830)	6'2" (1890)	6'6" (1970)	5'11" (1810)	8'11" (2710)
Operating weight	lb (kg)	20745 (9410)	20790 (9430)	20767 (9420)	20834 (9450)	21319 (9670)	21804 (9890)

Data with Loading Fork		
TPV attachment carrier Center of gravity 500 mm		
Tipping load, full turn (ISO 14397)	lb (kg)	10604 (4810)
Payload according to EN 474-3, 60/80%	lb (kg)	6349 / 8024 (2880 / 3640)
Payload 80%, transport position, 40° full turn	lb (kg)	8818 (4000)

L50F with TP-linkage, TPV attachment carrier and 17.5-25 tires	
B	17'8" (5380 mm)
C	8'8" (2650 mm)
D	1'5" (435 mm)
F	9'9" (2980 mm)
G	3'3" (1000 mm)
J	11'7" (3525 mm)
K	12'5" (3780 mm)
O	54 °
P	45 °
R	44 °
S	76 °
U	10" (255 mm)
X	5'8" (1730 mm)
Y	7'2" (2190 mm)
Z	18'2" (3535 mm)
a <sub>2</sub>	15'7" (4760 mm)
a <sub>3</sub>	8'4" (2540 mm)
a <sub>4</sub>	40 °

## STANDARD EQUIPMENT

### Engine

Diesel engine, direct fuel injection  
Extra fuel filter  
Cold start aid  
Dry-type air filter  
Preparation for pre-filter  
Filtration screens on air inlets  
Reversible fan—three mode selectable (optional on the L45F)

### Electrical system

Alternator 55 A

### Lighting

Main head lights (halogen) full/dipped/asymmetrical  
Working lights (2 front/2 rear right)  
Parking lights  
Rear lights  
Brake lights  
Direction indicators  
Hazard warning lights  
Reversing lights  
Cab lighting

### Instrumentation & controls

Multi-function lever  
24 Volt accessories socket  
Horn  
Hazard warning switch  
Safety start

### Electronic Information System

Analog LED-information for:  
Fuel level  
Engine temperature  
Drive system oil temperature  
LED-illuminated symbols (color-coded) for:  
Direction (forward/reverse)  
Indicators (left/right)  
Pre-heater  
Main beam  
Differential locks  
Locking and activation of Volvo  
Quick Attachment

LED-illuminated symbols (red) with acoustic signal for:  
Parking brake  
Air filter restriction  
Drive system oil temperature  
Engine temperature  
Engine oil pressure  
Battery charging  
Return filter

Touch pad with symbols and integrated

LEDs for:

Parking lights  
Working lights (front/rear)  
Windshield wiper (rear)  
Activation of multi-function lever for directional change

Digital LED display activated by dual

Function keys for:

Entry and retrieval of operating information  
Anti-theft function control

### Drivetrain

Hydrostatic drive  
Operator-selected 100% differential locks  
L45F Tires 15.5-25  
L50F Tires 17.5-25

### Hydraulic system

Load-Sensing Hydraulics  
Axial piston pump  
Control valve three-spool system  
3rd hydraulic circuit

### Safety

Emergency secondary steering  
Audible reverse alarm

### Cab, Exterior

ROPS/FOPS-cab with flexible mountings  
Walk-through cab  
Lockable doors  
All-round tinted safety glass  
Windshield wiper (front/rear)  
Windshield washer (front/rear)  
Sliding window in the left door  
Door stops  
External rearview mirrors (right/left)  
Cab filtration system (L50F only)

### Cab, Interior

4-way adjustable operator's seat  
Adjustable steering column  
Seat belt  
Sunvisor  
Left armrest  
Heater with air-filter and defroster (front/rear)  
Cab ventilation  
Air-conditioner  
Storage box in the cab  
Rearview mirrors (left/right)  
Cup holder  
Coat hook  
Emergency hammer  
Radio  
Radio CD (L50F only)  
Air suspension operator's seat

### Working Equipment

Automatic bucket leveller  
Hydraulic quick-change attachment carrier

### Carriage Body

Fenders and mudguards, (front/rear)  
Lockable engine hood  
Lockable fuel-tank cap  
Vertical exhaust  
Towing device  
Lifting eyes

## International Standards for Machines and Production

Quality: DIN/ISO 9001  
Safety: CE - Criterion  
Machine guide-lines 98/37/EC  
ROPS ISO 3471  
FOPS ISO 3449  
Operating weight ISO 7131  
Tipping load / Payload: ISO/DIS 14397-1  
EMV (Electromagnetic Compatibility)  
89/336/EEC plus supplement  
Environment: DIN/ISO 14001  
Sound regulation: 2000/14/EC

## OPTIONAL EQUIPMENT

### Engine Equipment

Pre-heater  
Pre cleaner air filter (Turbo II)  
Oilbath air filter  
Exhaust particle filter  
Reversible fan—three mode selectable (L45F)  
Tropical kit

### Electrical system

Alternator 80 A

### Instrumentation & controls

Single lever with integrated 3rd function  
3-lever control  
4-level control

### Electronic Information System

Boom arm suspension system on/off  
Loading fork operation  
Rotating beacon

### Drivetrain

High travel speed

### Hydraulics

Hydraulic couplings for  
4th hydraulic circuit

### Cab

Handthrottle  
Hand control inch valve  
Noise insulation  
Additional transport lights (L50F only)  
Heated air suspension operator seat (L50F only)

### Working Equipment

Boom arm suspension system  
Volvo style Quick Attachment Welded/Cast

### Carriage Body

Fender extensions

### Environment

Biodegradable hydraulic oil

### Safety

Anti-theft system  
Protective guards for:  
Main head lights  
Working lights  
Rear lights  
Rotating beacon  
Front window protection  
Rear window protection  
Belly guard  
Rear engine guard



# THE VOLVO GROUP NORTH AMERICA



## Volvo Trucks

Volvo's truck manufacturing operations began in 1928. Today, Volvo Trucks is the world's second-largest producer of heavy trucks. Vehicles of more than 16 tons account for 90% of total production. Volvo Trucks' products are marketed in more than 130 countries, with most sales in Western Europe and North and South America.



## Volvo Financial Services

Volvo Financial Services (VFS) develops and coordinates Volvo's operations within customer financing, insurance, treasury, real estate, and related services. It is focused exclusively on providing financial services to the Group's internal and external customers. Demand for its services has resulted in the increased diversification of its portfolio and product offerings. Financial solutions created by VFS are designed to enhance the long term competitiveness of the Volvo Group and its dealers.



## Mack Trucks

Mack Trucks is one of the largest manufacturers of heavy trucks in North America. Mack was founded in 1900 and focused on commercial vehicles from the start. Today, Mack is one of the strongest heavy-truck brands and the indisputable leader in the vocational segment of the North American market. The product program includes heavy and medium-duty trucks, sold and serviced in more than 45 countries worldwide.



## Volvo Bus Corporation

Volvo is the world's second largest bus manufacturer, with a complete range of heavy buses to meet demanding customer requirements for passenger transport solutions. The product range includes complete buses and coaches as well as chassis combined with a comprehensive range of services. Volvo Bus also offers intelligent transport systems in cooperation with Volvo Mobility Systems. Volvo's bus operation has a global presence, with production in Europe, North and South America, and Asia.



## Volvo Aero Corporation

Well established and specialized in selected areas within the high-tech aerospace industry, Volvo Aero works in close cooperation with partners such as General Electric, Rolls-Royce, and Pratt & Whitney. Volvo Aero develops and manufactures components for civil and military aircraft engines and space rockets, as well as land-based gas turbines. In the aftermarket Volvo Aero is a leading independent provider of customer tailored service solutions, based on engine maintenance, asset management, sales and leasing of aircraft engines, engine parts, and aircraft components.



## Volvo Penta

Volvo Penta provides engines and complete power systems to customers who produce leisure boats, workboats, power-generating equipment, and similar industrial applications. Volvo Penta operates worldwide and has one of the industry's strongest brand names and the largest dealer networks with more than 5,000 dealers globally. The engine program comprises diesel and gasoline engines with power outputs of between 10 and 2,000 hp.



Volvo Construction Equipment is different. Our machines are designed, built and supported in a different way. That difference comes from an engineering heritage of over 175 years. A heritage of thinking first about the people who actually use the machines. About how to help them be safer, more comfortable, more productive. About the environment we all share. The result of that thinking is a growing range of machines and a global support network dedicated to helping you do more. People around the world are proud to use Volvo. And we're proud of what makes Volvo different – **More care. Built in.**



*Not all products are available in all markets. Under our policy of continuous improvement, we reserve the right to change specifications and design without prior notice. The illustrations do not necessarily show the standard version of the machine.*

# VOLVO

**Volvo Construction Equipment**  
[www.volvoce.com/na](http://www.volvoce.com/na)

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